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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,753	07/08/2005	Katsuhiko Higashino	Q88807	3898
23373 7590 05/09/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER HU, HENRY S	
			ART UNIT 1713	PAPER NUMBER
			MAIL DATE 05/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/541,753

Applicant(s)

HIGASHINO ET AL.

Examiner

Henry S. Hu

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment of March 15, 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. It is noted that USPTO has received **Amendment** filed on March 15, 2007. **Claim 1 was amended; Claim 6 was cancelled, while no new claim was added.** To be more specific, parent **Claim 1** was incorporated with the limitation of dependent Claim 6 so that carbon fluoride filler is heat treated at 300 to 550 °C in advance. **Claims 1-5 and 7-9 are now pending.** An action follows.

Response to Argument

2. Applicant's argument filed on March 15, 2007 has been fully considered but they are not persuasive. The focal arguments related to the patentability will be addressed as follows: Such an amendment on the pending parent Claim 1 involves only one thing: parent **Claim 1** was only incorporated with the limitation of dependent Claim 6 so that carbon fluoride filler is heat treated at 300 to 550 °C in advance.

3. In view of such an amendment, previous 102 and 103 rejections are modified with new reference Lidorenko (English abstract only) into 103 rejections after more searches as follows:

Claim Rejections - 35 USC § 103

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. The limitation of parent **Claim 1** in present invention relates to **a crosslinkable elastomer composition for plasma process comprising two components as: (A) a crosslinkable elastomer, and (B) a carbon fluoride filler, wherein carbon fluoride filler is heat treated at 300 to 550 °C in advance.**

See other limitations of dependent Claims 2-5 and 7-9.

6. Claims 1-2, 4 and 7-9 are rejected under 35 U.S.C. 103(a) as being obvious by Minamino et al. (US 6,974,845 B1) in view of SU 516126 A (Assignee: Lidorenko) for the reasons set forth in paragraphs 4-5 of office action dated 12-15-2006 as well as the discussion below.

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7. Claims 1-2, 4 and 6-9 are rejected 35 U.S.C. 103(a) as being unpatentable over Ohata et al. (US 5,430,103), Amin et al. (US 5,444,116) or Amin et al. (US 5,461,107), each individually in view of Minamino et al. (US 6,974,845 B1) and **SU 516126 A (Assignee: Lidorenko)** for the reasons set forth in paragraphs 7-8 of office action dated 12-15-2006 as well as the discussion below.

8. Claims 3 and 5 are rejected 35 U.S.C. 103(a) as being unpatentable over Ohata et al. (US 5,430,103), Amin et al. (US 5,444,116) or Amin et al. (US 5,461,107), each individually in view of Minamino et al. (US 6,974,845 B1) and **SU 516126 A (Assignee: Lidorenko)**, and further in view of Matsumoto et al. (US 6,610,761 B1) for the reasons set forth in paragraph 9 of office action dated 12-15-2006 as well as the discussion below.

9. Claims 3 and 5 are rejected 35 U.S.C. 103(a) as being unpatentable over Minamino et al. (US 6,974,845 B1) in view of **SU 516126 A (Assignee: Lidorenko)**, and further in view of Matsumoto et al. (US 6,610,761 B1) for the reasons set forth in paragraph 10 of office action dated 12-15-2006 as well as the discussion below.

10. Regarding the limitation of current parent Claim 1, each of primary references including **Minamino, Ohata, Amin "116" and Amin "107"** in previously-mentioned rejections may have already at least somewhat heated filler and/or its composition so as to remove volatile impurities and the like as known in the art. However, each of four references is still silent about **pre-**

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heating carbon fluoride filler at a specified high temperature such as 300 to 550 °C. SU 516126 A (Assignee: Lidorenko) teaches that carbon fluoride filler can be heated up to the softening temperature of the binder polymer. By doing so, such a composition can be useful as cathode material of high capacity electric battery (see title and its English abstract).

It is noted that at least some binder polymers may have a softening temperature overlapping with the range of 300-550 °C. Heating sequence such as before or after the mixing of polymer and carbon fluoride filler may be not critical for final product performance. In the art, heating temperature may be necessarily to be that high as long as its heating time is long enough.

11. In light of the fact that all involving references are dealing with making compositions comprising polymer and carbon fluoride filler, one having ordinary skill in the art would therefore have found it obvious to modify Minamino, Ohata, Amin 116 and Amin 107's making a composition comprising polymer and carbon fluoride filler by heating or preheating carbon fluoride filler at a temperature close to or overlapping with the range of 300-550 °C as taught by SU 516126 A (Assignee: Lidorenko). By doing so, such a composition can be useful as cathode material of high capacity electric battery. Therefore, more diversified products can be effectively and conveniently obtained.

12. Current parent Claim 1 has been only incorporated with the limitation of dependent Claim 6 so that carbon fluoride filler is heat treated at 300 to 550 °C in advance. No other

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amendment is included. Therefore, previous 102 and 103 rejections are all modified with new reference Lidorenko into 103 rejections in this regard.

Conclusion

13. Applicant's amendment **necessitated the new ground(s) of rejection presented in this Office action**. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Dr. Henry S. Hu whose telephone number is (571) 272-1103**. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.

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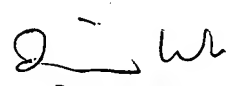
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300 for all regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Henry S. Hu

Patent Examiner, Art Unit 1713, USPTO

May 2, 2007


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ADVISORY PATENT EXAMINER
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